

# REQUEST FOR BIDS

**Purchase of Sewer Mainline Inspection  
Equipment for the City of Marietta/BLW**

**RFB-15-36755**



**CITY OF MARIETTA  
PURCHASING DEPARTMENT  
205 Lawrence Street  
Marietta, Georgia  
30060**

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**REQUEST FOR BID NO. RFB-15-36755**

**FOR**

**Purchase of Sewer Mainline Inspection Equipment for the City of  
Marietta/BLW**

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## **INSTRUCTIONS TO BIDDER FOR INVITATION TO BID**

### **ARTICLE 1 TIME AND DATE DUE**

The City of Marietta, a political subdivision of the State of Georgia (hereinafter "City of Marietta" or the "City") shall receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Georgia or authorized to conduct business in the State of Georgia until 2:00 P.M., Wednesday, November 19, 2014; for the following:

### **Purchase of Sewer Mainline Inspection Equipment for the City of Marietta/BLW**

**RFB-15-36755**

All bid requirements shall be in accordance with Specifications and Guidelines, Exhibit "D" (Pages BF-1- BF-12), attached hereto.

### **ARTICLE 2 OPENING LOCATION & TIME**

This bid shall be opened at 2:00 P.M., Wednesday, December 10, 2014; at the City of Marietta, Purchasing Department, First Floor, 205 Lawrence Street, Marietta, Georgia 30060.

### **ARTICLE 3 DELIVERY REQUIREMENTS**

Any bids received after the stated time and date shall not be considered. The time/date stamp clock located in the Purchasing Department shall serve as the official authority to determine lateness of any bid. It shall be the sole responsibility of the bidder to have their bid delivered to the City of Marietta Purchasing Department for receipt on or before the above stated time and date. If a bid is sent by the U.S. Postal Service, the bidder shall be responsible for its timely delivery to the Purchasing Department. Bids delayed by the mail shall not be opened at the public opening, and arrangements shall be made for their return at the bidder's request and expense. The bid opening time shall be strictly observed. Under no circumstance shall a bid delivered after the specified time be considered. Such bids will be returned unopened.

### **ARTICLE 4 CLARIFICATION & ADDENDA**

Each bidder shall examine all invitation for bid documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to the invitation to bid shall be made through Mr. Jameison A. Henderson, [JHenderson@mariettaga.gov](mailto:JHenderson@mariettaga.gov), Purchasing Agent II (770) 794-5697, the City of Marietta, Purchasing Department. The City shall not be liable for oral interpretations given by any City employee, representative, or others. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

If any addenda are issued to this invitation for bid, the City shall attempt to notify all prospective bidders who have secured the same, however, it shall be the responsibility of each bidder prior to submitting their bid to contact the City of Marietta, Purchasing Department at (770) 794-5699 to determine if any addenda were issued and to make sure such addenda is a part of their bid. *EACH BIDDER SHALL ACKNOWLEDGE IN ITS BID ALL ADDENDA RECEIVED.*

#### **ARTICLE 5 USE, CLARIFICATION AND RETURN OF DRAWINGS AND SPECIFICATIONS**

All Drawings and Specifications for the work are the sole property of the Owner and intended solely for use in the work contemplated in such Drawings and Specifications. Except for a bidder whose bid is accepted, said Drawings and Specifications shall be returned in good condition immediately upon receipt of notification that a bid has been accepted or that no award of said bid shall be accepted.

If there are any discrepancies in, or omissions from, the Drawings or Specifications, or if the bidder is in doubt as to the true meaning of any part of the Contract Document, he shall request clarification from The Purchasing Department. Such request shall be in writing and shall be made not less than forty-eight hours prior to the time scheduled for the termination of bidding. Interpretations in response to inquiries for any bidder, clarifications or corrections issued in the form of addenda shall be mailed to each bidder. If the bidder fails to request clarification regarding methods of performing work or the material required, his bid shall be deemed to include the method requiring the greater quantity of work or material or upon the material of greatest cost indicated.

#### **ARTICLE 6 BUSINESS LICENSE /OCCUPATIONAL LICENSE**

The bidder shall provide appropriate proof of an Occupational Tax license.

#### **ARTICLE 7 SEALED & MARKED**

**SIX (6) SIGNED COPIES OF YOUR BID SHALL BE SUBMITTED, ONE (1) ORIGINAL AND FIVE (5) COPIES IN ONE (1) SEALED PACKAGE, CLEARLY MARKED ON THE OUTSIDE:**

#### **REQUEST FOR BID**

**No. RFB-15-36755**

**Purchase of Sewer Mainline Inspection Equipment for the City of Marietta/BLW**

**and addressed to:**

**City of Marietta, Purchasing Department  
205 Lawrence Street  
Marietta, Georgia 30060  
Attention: Jameison A. Henderson  
Purchasing Agent II**

## **ARTICLE 8 LEGAL NAME**

Bids shall clearly indicate the legal name, address and telephone of the respective bidder (company, firm, partnership, or individual). Bids shall be signed below the typed or printed name and title of the signer. The signer shall have the authority to bind the bidder to the submitted bid.

## **ARTICLE 9 BID EXPENSES**

All expenses for making bids to the City are to be borne by the bidder.

## **ARTICLE 10 IRREVOCABLE OFFER**

Any bid may be withdrawn up until the date and time set above for the opening of bid. Any bid not withdrawn shall, upon opening, constitute an irrevocable offer for a period of One Hundred Fifty (150) days to sell to The City of Marietta the goods or services set forth in the attached specifications until one or more of the bids have been duly accepted by the City. All prices shall be quoted F.O.B. City of Marietta, Georgia.

Bid modifications shall be accepted from a bidder only if received prior to the scheduled bid opening, in writing, properly signed by the authorized representative of the bidder's (company, firm, partnership, individual). Bid modifications shall be submitted as referenced in Article No. 8 and clearly marked "BID MODIFICATIONS".

Mathematical errors shall be corrected by the City, i.e.: misplaced decimal points shall be corrected; in discrepancies between unit price vs. extended price, unit price shall govern; errors in extension of unit prices shall be corrected and mathematical errors shall be corrected.

## **ARTICLE 11 RESERVED RIGHTS**

The City reserves the right to accept or reject any and or all bids, to waive irregularities and technicalities, award the contract in the best interest of the City of Marietta or to request re-bid. The City reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the City.

For each item or for all items combined, the bid of the lowest, responsible and responsive bidder shall be accepted, unless all bids are rejected. The lowest responsive bidder shall mean the bidder who makes the lowest bid to sell goods and/or services of a quality which conforms closest to the quality of goods and/or services set forth in the attached specifications or otherwise required by the City, and conforms to all material aspects of the requirements set forth in the invitation for bid. To be a responsible bidder, the bidder shall be fit and capable to perform the work as required, shall have the capability in all respects to perform fully the contract requirements, and shall have the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which shall assure good faith performance. Also, the City reserves the right to make such investigations as it deems necessary to determine the ability of any bidder to deliver the goods or service requested.

Information the City deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to current financial statements; verification of availability of equipment and personnel; and past performance records.

## **ARTICLE 12 APPLICABLE LAWS**

Bidders shall be authorized to transact business in the State of Georgia. All applicable laws and regulations of the State of Georgia and ordinances and regulations of the City of Marietta shall apply to any resulting agreement.

## **ARTICLE 13 CODE OF ETHICS**

With respect to this bid, if any bidder violates or is a part to a violation of the State of Georgia Code of Ethics for Public Officers and Employees, such bidder may be disqualified from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for goods or services for the City of Marietta.

## **ARTICLE 14 COLLUSION**

By offering a submission to this invitation for bid, the bidder certifies that the bidder has not divulged to, discussed or compared his bid with other bidders and has not colluded with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case of a joint bid each party thereto certifies as to his/her own organization, that in connection with this bid:

- 14.1 Any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and or cost data, with any other bidder or with any competitor;
- 14.2 Any prices and/or cost data quoted for this bid have not been knowingly disclosed by the bidder and shall not knowingly be disclosed by the bidder prior to the scheduled opening directly or indirectly to any other bidder or to any competitor;
- 14.3 No attempt has been made or shall be made by the bidder to induce any other person or firm to submit a bid for the purpose of restricting competition;
- 14.4 The only person or persons interested in this bid, principal/principals is/are named therein and that no person other than therein mentioned has any interest in his bid or in the contract to be entered into;
- 14.5 No person or agency has employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or established commercial agencies maintained by the Purchaser for the purpose of doing business.

## **ARTICLE 15 CONTRACT FORMS**

Any agreement, contract or Purchase Order resulting from the acceptance of a bid shall be on forms provided by the City. Each bidder shall state in his bid, in words and numerical, written in ink or typed, the price for which he shall perform the work or supply the items required by the specifications, plans and contract documents. Any erasures, delineations or alterations are to be clear and initialed by the person signing.

## **ARTICLE 16 NOTICE OF ACCEPTANCE**

The contract shall be deemed as having been awarded when the formal notice of acceptance/contract is issued to the Contractor(s). After award and acceptance the successful Contractor(s) may be posted at the Marietta Purchasing website.

## **ARTICLE 17 BID FORMS, VARIANCES, and ALTERNATES**

Bids shall be submitted on attached City forms. **BIDDERS SHALL SUBMIT SIGNED BID FORMS, ALL DOCUMENTS REQUIRING SIGNATURES AND ANY OTHER ATTACHMENTS (LICENSES, SPECIFICATIONS, ETC.) REQUIRED FOR THIS BID IN TRIPLICATE WITH ORIGINAL SIGNATURES WHERE APPLICABLE.**

Bidders shall indicate any and all variances/exceptions from the City requested specifications, terms, and conditions on sheet entitled **“EXHIBIT B”** Providing there has been no variances/exceptions or alterations attached to said bid, it shall be assumed that the bidder is meeting all requirement of the specifications. Alternate bids may or may not be considered at the sole discretion of the City.

## **ARTICLE 18 DISCOUNTS**

Any and all discounts shall be incorporated as a reduction in the bid price and not shown separately. The price as shown on the bid shall be the price used in determining awards.

## **ARTICLE 19 DESCRIPTIVE INFORMATION**

Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, make or catalogue number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. If the bidder wishes to make substitution to the specifications, bidder shall furnish to the City the name of the manufacturer, the model number, and other identifying data and information necessary to aid the City in evaluating the substitution, and such substitution shall be subject to City approval. Substitutions shall be approved only if determined by the City to be equivalent to the specifications. A bid containing a substitution is not accepted until such time as it is approved by the City.

## **ARTICLE 20 TAXES**

The City of Marietta is exempt from Federal Excise and State Sale Taxes; therefore the bidder is prohibited from delineating a separate line item in his bid for any sales or service taxes. The City of Marietta does not intend to imply that a bidder has no independent tax liability.

## **ARTICLE 21 USE OF TRADE NAMES**

Brand or trade names referenced in specifications are for comparison purposes only. Bidders may submit bids on items manufactured by other than the manufacturer specified. In these instances, bids shall be accompanied with all descriptive information necessary for a thorough evaluation of the proposed materials, equipment such as detailed drawings and specifications, certified operation and test data, and experience records, as well as an itemized list of any variance from, or exception taken to the specifications. Failure of any bidder to furnish this data shall be cause for rejection of specified item(s) to which it pertains.

## **ARTICLE 22 BID GUARANTEE**

The City of Marietta shall request the following for proposals in excess of Forty Thousand Dollars (\$40,000.00).

### **22.1 BID BOND**

Each bid shall include a bid bond or cashier's check in the amount of five percent (5%) of the total bid amount as guarantee that the bidder shall not withdraw the bid for One Hundred Fifty (150) days after the scheduled bid opening. If awarded the contract, Bidders shall enter a written agreement with the City of Marietta in accordance with the bid. Bid guarantee shall be returned after the City and the accepted Bidder have executed the contract agreement. Checks to be made payable to: The City of Marietta.

### **22.2 PERFORMANCE BOND**

Upon execution and delivery of the contract, the bidder shall furnish the City a performance bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the City. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

### **22.3 PAYMENT BOND**

Upon execution and delivery of the contract, the bidder shall furnish the City of Marietta a payment bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the City. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

## **ARTICLE 23 REGULATIONS, CODES AND STANDARDS**

It shall be the responsibility of each supplier to assure compliance with any and all Codes & Standards including but not limited to OSHA, EPA LIFESAFETY, ANSI ASTM, UA and/or other Federal or State of Georgia rules, regulations or other requirements, as each may apply. When applicable, and as required under the provisions of Georgia's Right-To-Know-Law, the manufacturer, importer or distributor of a toxic substance shall provide a material safety sheet with the bid.

## **ARTICLE 24 AUTHORIZED PRODUCTION REPRESENTATION**

The successful bidder(s) by virtue of submitting the name and specifications of a manufacturer's product shall be required to furnish the named manufacturer's product. By virtue of submission of the stated documents it shall be presumed by the City that the bidder(s) is/are legally authorized to submit, and the successful bidder(s) shall be legally bound to perform according to the documents.



## **ARTICLE 25 INSURANCE, INDEMNIFICATION, AND LIABILITY**

Owner requires the vendor to have and maintain the following insurance coverage and indemnification provisions with the City of Marietta named as an additional insured thereunder:

### **A. INSURANCE**

The Contractor agrees to provide and maintain insurance coverage until the contract is completed and to furnish certificates from its insurance carriers, showing that it carries insurance in the following minimum limits:

#### **I. Workmen's Compensation Insurance                      Statutory**

#### **II. Comprehensive General Liability Insurance including:**

Bodily Injury	\$1,000,000 per person \$1,000,000 per occurrence
Property Damage	\$1,000,000 per person \$1,000,000 annual aggregate

#### **III. Automobile Liability Insurance including:**

\$1,000,000 combined single  
limit

### **B. INDEMNIFICATION**

The Contractor agrees to indemnify and save harmless the Owner, its agents, assigns, and employees from and against all claims, demands, liabilities, suits, judgments and decrees, losses and costs and expenses of any kind or nature whatsoever on account of injuries to or death of any person or persons or damage to any property occurring directly or indirectly from performance of work hereunder by contractor or his employees, agents, servants, associates or subcontractors however such injuries or death or damage to property may be caused.

### **C. LIMITATIONS OF LIABILITY**

Owner shall not be liable in contract or in tort (including negligence) to Vendor, subcontractor or suppliers of Vendor, regardless of tier, for incidental or consequential damages arising out of or resulting from Owner's performance or nonperformance of its obligations under this Agreement, or from Owner's termination or suspension of the services under this Agreement.

#### **ARTICLE 26 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE**

The City of Marietta, Marietta, Georgia, in accordance with the provisions of Title VI of The Civil Rights Act of 1964(78 Stat. 252) and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all proposers that it shall affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises shall be afforded full opportunity to submit proposals in response to this advertisement and shall not be discriminated against on the grounds of race, color, disability or national origin in consideration for an award.

#### **ARTICLE 27 DRUG FREE WORKPLACE**

The City of Marietta is a DRUG FREE WORKPLACE. It is required that the attached Drug Free Workplace Form (Exhibit B) be signed and returned to this office with the proposal. In the event of a tie proposal, receipt of a valid and accurate form may be used as basis for awarding the contract.

#### **ARTICLE 28 WORK AUTHORIZATION PROGRAM**

Contractor affidavit and agreement and subcontractor affidavit and agreement are attached (Exhibit C) it is required that these forms be signed and returned to this office with the proposal.

**EXHIBIT "A"**

**Drug Free Work Place Certification**

**Identical Tie Bids - Preference shall be given to businesses with drug-free workplace program. Whenever two or more bids which equal with respect to price, quality and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that has implemented a drug-free work place program shall be given preference in the award process. Established procedures processing tie bids shall be followed if none of the tied vendors have drug-free workplace program. In order to have a drug-free workplace, a business shall:**

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of controlled substances is prohibited in the workplace and specifying the actions that shall be taken against employees for violation of such prohibition.**
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.**
- 3) Give each employee engaged in providing the commodities of contractual services that are under bid a copy of the statement specified in the subsection (1).**
- 4) In the statement specified in subsection (1), notify the employee that, as a condition of working on the commodities or contractual services that under bid, the employee shall abide by the terms of the statement and shall notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.**
- 5) Impose a sanction on, or require that satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.**
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.**

**As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.**

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**COMPANY NAME**

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**AUTHORIZED SIGNATURE**

**EXHIBIT “B”**

**ALTERATIONS /EXCEPTIONS**

**SPECIAL INSTRUCTION: ALL ITEMS SHALL BE TYPED OR PRINTED**

**EXHIBIT "C"**

**Contractor Affidavit under O.C.G.A. § 13-10-91(b) (1)**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of THE CITY OF MARIETTA, GEORGIA has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Name of Project

\_\_\_\_\_  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 201\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

### **Subcontractor Affidavit under O.C.G.A. § 13-10-91(b) (3)**

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with \_\_\_\_\_ (name of subcontractor) on behalf of THE CITY OF MARIETTA, GEORGIA has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice of receipt of an affidavit from any sub-subcontractor that has contracted with a sub-subcontractor to forward, within five business days of receipt, a copy of such notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Subcontractor

\_\_\_\_\_  
Name of Project

\_\_\_\_\_  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 201\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

### Sub-subcontractor Affidavit under O.C.G.A. § 13-10-91(b) (4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for \_\_\_\_\_ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and \_\_\_\_\_ (name of contractor) on behalf of THE CITY OF MARIETTA, GEORGIA has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. § 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to \_\_\_\_\_ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to \_\_\_\_\_ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Sub-subcontractor

\_\_\_\_\_  
Name of Project

\_\_\_\_\_  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 201\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

## **EXHIBIT "D"**

### **Specifications and Guidelines**

#### **1.0 General Requirements**

##### **1.1 Intent of Specifications**

It is the intent and purpose of these specifications to secure for the Owner City of Marietta the necessary equipment and accessories, which will comprise a multi-conductor type color sewer TV inspection system. A detailed list of components required is included and is the basis on which the Contractors bid is made. The following specification is based the Modular 1 Pipeline Inspection System as manufactured by IBAK. The City of Marietta has evaluated different types of inspection systems and has determined that this product is best suited for the City of Marietta's needs in safety, quality and performance. This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all inspection systems bid will be compared.

##### **1.2 Materials and Workmanship**

All equipment, materials, parts, and workmanship are required to be furnished, will be of the highest grade in accordance with modern practice. The equipment supplied will be new and unused, except for necessary testing, calibration, and transportation.

##### **1.3 Warranty**

The manufacturers and or contractor's standard warranty or guarantee on new equipment will cover all items furnished in accordance with these specifications. The minimum warranty period on new equipment will be one (1) year from the date of delivery.

##### **1.4 Experience**

The equipment to be furnished will be the product of a qualified manufacturer that is regularly engaged in the manufacture and supply of this equipment. A qualified firm will be defined to mean one, which has manufactured and sold twenty-five (25) or more of the specified units during the past two (2) years.

##### **1.5 Parts and Service**

To best serve the requirements of the Owner, it is the intent of these specifications to secure equipment, which can be properly maintained and serviced without the necessity of stocking an expensive parts inventory or being subjected to long periods of interrupted service due to lack of spare parts. All Bidders submitting bids must have available at least one (1)-factory parts and service center within the United States. These centers will be staffed with full-time technical, as well as order and shipping personnel, during regular business hours and days. These factory centers must have toll-free telephone service and be convenient to airfreight, bus, or overnight parcel service. The Bidder will list the nearest factory part and service location, plus any other pertinent information requested.

##### **1.6 Electronic Equipment Loaner Policy**

The Bidder will maintain rental and/or loaner electronic equipment at service center if unable to repair and have ready to return any component of the system within one (1) week of receipt from the purchaser. The service center will have available a rental or loaner component for immediate shipment. The Bidder will indicate whether a rental charge is made for this equipment and service both during and after warranty.

##### **1.7 Exceptions and Alternate Bids**

Major exceptions to the component list and specification requirements, or failure to submit requested information will be considered sufficient cause for rejection of a bid. The specifications describe the components and/or system that are necessary to meet the performance requirements of the Owner. Alternate Bids must meet the intent of the specifications, and any deviations to the specifications will be clearly delineated on the Contractor Information Sheet.



## 1.8 Information to be furnished by Bidder

Each Bidder will furnish the information listed in the General Notice at the time the Bid is submitted. Failure to include all required information will be cause for rejection of the submitted Bid.

## 1.9 Pre-Contract Demonstration of the Equipment

The Owner will have the right to have each Bidder (Contractor), demonstrate the exact equipment that will be supplied within two (2) weeks after notification following the opening of Bids. Failure to demonstrate the exact equipment will be just cause for disqualification of the bid.

## 1.10 Training

The Contractor will fully instruct the Owners personnel in the operation of the equipment furnished, after delivery, at no additional cost to the Owner. The instruction period will be of sufficient duration (minimum one day) to fully familiarize the Owners operating personnel with all elements of the equipment, and the appropriate maintenance of the equipment and related parts. This instruction and testing will be conducted by trained personnel of the Contractor and will include full instruction in equipment operation, field procedures, techniques of use, maintenance, troubleshooting, and recording and logging of field information.

## 1.12 Service Manuals

The Contractor will furnish at least two (2) copies of suitable service manuals that describe in detail the proper operation and maintenance of the equipment furnished under the contract. The manuals will contain a current and complete parts for re-ordering, and the equipment actually furnished under this contract will be highlighted to identify exact part and model numbers for each component.

## 1.11 Payment to the Contractor

Full payment under this contract will be made by the Owner in a single, lump sum payment within thirty (30) calendar days after the successful completion of all contract requirements by the Contractor. The contract requirements will include the required furnishing, installation, and demonstration of equipment and accessories as specified herein, including the furnishing of the required training and service manuals, including vehicle title.

## 1.12 Time of Contract Completion

The Contractor will furnish, install, deliver, and successfully demonstrate all equipment as specified herein; provide the required training; and provide the required service manuals within Ninety (90) calendar days after issuance of Purchase Order.

## 1.13 Pricing

The Contractor will provide a detailed Pricing List for this project that will include the following: furnishing, installation, and demonstration of equipment and accessories as specified herein, including the furnishing of the required training and service manuals, including vehicle title and any other costs that go along with a project such as this.

## 1.14 Contact Information

Interested Bidders will contact Mr. Jameison A. Henderson, Purchasing Agent II (770) 794-5697, JHenderson@mariettaga.gov at the City of Marietta, Purchasing Department, with any questions concerning these specifications.

## 1.15 List of Equipment

The Winning Bidder shall provide the following equipment, labor, training, and retro-fit:

1. 2 Cameras (See Specifications Below).
2. 2 Tractors with all needed connectors (See Specifications Below).
3. 2 Mainline Truck Cable reels with a 1000' of cable. (See Specifications Below).
4. 1 Rack Mounted Power Control Unit (See Specifications Below).
5. 1 Portable Power Control Unit (See Specifications Below).
6. 1 Pressure Test Kit (See Specifications Below).
7. Tractor Weight Kit.
8. Two (2) Locators capable of 33 and 512 sonde.
9. 1 Cable Deflection Unit with Rope.
10. 1 Back-up Camera (See Specifications Below).
11. 1 Lift for Raising Camera (See Specifications Below).
12. 2 Professional 17" LCD Monitors (Mounted).
13. 1 Professional 15" LCD Monitor Rear.
14. 2 Sets of Granulated Wheel Sets for 6"-10" Pipe (See Specifications Below).
15. 2 Wheel Adapter Sets.
16. 2 Treaded Wheel Sets for 6"-10" (See Specifications Below)
17. 2 Wheel Sets for 10" and up
18. 1 Custom Box to Mount Mainline System to include:
  - a. Box must be designed to fit in Clients existing off road vehicle.
  - b. Designed to be lifted by fork lift.
  - c. Tie down points at 4 upper corners.
  - d. Portable controller must be accessible and removable from ATV unit.
  - e. Box must have access to computer tray and include all hardware.
  - f. Designed to hold Mainline Reel.
  - g. Include Generator.
19. Equipment must work seamlessly with clients existing Software Pipelogix.
20. 1 Roof Air unit to replace unit on CCTV Van.
21. The Total cost to Replace Equipment on CCTV Van (This is to include cost of transportation, fuel, and labor).
22. 2 Days of Factory Training by a certified factory representative.
23. 1 KW Reel Cabinet.
  - a. Constructed of High Strength steel for mounting reel off the floor.
  - b. Single Aluminum Drawer with Divider for storage.

## 2.0 Inspection System Specifications

### Pan, Tilt and Zoom Camera (Color):

1. Camera must have pan, tilt and zoom function with motorized controls to allow the operator to change the viewing angle and camera zoom from the camera controller.
2. Camera must be able to be attached to a hand push rod for lateral inspection, attached to a lateral launch inspection system for inspections of laterals from main as well as onto a wheeled robotic tractor for mainline operation.
3. The camera housing must be constructed of aircraft aluminum for its resistance to high pressures, durability and being a very light weight material.
4. Camera shall have manual remote focus controls that can be changed from the camera controller.
5. Camera shall have a digital, 3x zoom for looking up into laterals and focusing on more distant objects within the pipeline.
6. Camera shall have an integrated laser diode which when used in conjunction with third-party software allows users to measure diameter, defects and objects in the pipeline.
7. Camera shall have automatic iris that adjusts light sensitivity based on pipeline conditions and has the ability to manually to adjust iris open or closed for enhanced capabilities.
8. The camera housing must be pressurized to a minimum of 1 bar to avoid water ingress that could cause damage. Pressure must be monitored by a minimum of 2 sensors located in the camera head.
9. A low-pressure or over pressure situation will alert the operator with an audible tone and text message on the camera controller's diagnostic display. Systems that do not monitor pressure and utilize audible and visual alerts to the under or over pressure will be deemed unacceptable.
10. Camera shall have built-in a minimum of 4 groups of 10 white LED lights to illuminate the interior of the pipeline. Light groups must be connected in parallel so that the failure of 1 LED does not affect other LED's.
11. Camera shall have the ability to illuminate pipe sizes from 4"-32" without the need for ancillary lighting. Cameras that need ancillary lighting to illuminate larger pipe sizes may considered deficient technology and not be accepted.
12. Camera must have auto upright camera control to insure video image is correctly displayed on the monitor with the top of the pipe always at the top of the video monitor screen.
13. Camera must have a built in radio sonde transmitter operating at 32.8 kHz. The transmitter shall be able to be powered off or on remotely without interrupting the camera operation. Cameras that do not have integrated radio sondes will be deemed as non-compliant and may be excluded.
14. Camera must be able to operate in a minimum 4" diameter pipeline.
15. Camera housing must be cylindrical in design with long radius edges and no protruding surfaces to catch on during operations.
16. Camera shall not exceed 2.4" OD and 4.0" total length. Camera that.
17. Camera CCD imaging chip must have a minimum of 380,000 pixels.
18. Camera aperture angle / FOV shall be no less than 90 degrees diagonal.
19. Camera photosensitivity shall be no more than 0.1 lux.
20. Camera resolution shall be a minimum of 570 TVL of horizontal resolution.
21. Camera rotation must be on the horizontal axis of the main connector with a slip ring through the geometric center of the camera to reduce unnecessary strain on moving parts and connectors during operation.
22. Camera must provide a clock position graphical overlay on screen to provide information on viewing angle. This feature will allow operator and data review specialists to verify clock position of defects in the pipeline.
23. Camera rotation must be controllable between 2 speeds of rotation.
24. Camera must have 360 degrees of continuous rotation.
25. Camera must have 240 degrees of total pan with no less than 310 degrees angle of view.
26. Camera shall have a zero (home) position where the camera views straight ahead and the upright picture control automatically enables.
27. All fasteners used on the camera must be recessed so that no protruding fasteners to catch during operations
28. Camera housing must be constructed of hard-anodized high strength aluminum with a documented testing of shock resistance of 1 kg / height of fall 27.5".
29. Camera light housing must be constructed of high strength polycarbonate with a documented testing of shock resistance of 1 kg / height of fall 15.75".

30. Camera lens protective front window shall be constructed of a special glass with a documented testing of shock resistance of 1 kg / height of fall 15.75”.
31. Camera protection class shall meet a minimum of an IP68 to IEC 529 rating.
32. All electronic PCBs shall be connected to one another without the need of soldering for ease of service and repair. Any camera with PCB's that require soldering will be deemed unacceptable.
33. Camera must be available in an explosion proof model utilizing ATEX certifications P Classification.
34. A tool and spares kit, and storage transport case must be provided.

## 2.1 Rear-Viewing Camera (Color)

1. Camera shall have the ability to be installed to provide a rear view.
2. Camera shall have built-in high power white LED lights to illuminate the interior of the pipeline.
3. Camera shall be constructed to install quickly in-between the mainline camera cable and the rear connector of the camera tractor.
4. Camera installation shall not affect the tip up or side motion of the tractor rear connector. Systems that the addition of the rear viewing camera effects the motion of the connector will not be accepted.
5. Camera body shall be made without sharp edges which will help prevent catching on debris, offset joints or other internal pipeline features.
6. Camera body shall be manufactured brass.
7. The system shall have the ability to automatically switch the displayed video to the Returns (rear) view when the system moves backward.
8. The system shall be able to select the view of the rear camera at any time during the inspection.

## 2.2 Robotic Tractor (Small)

1. Tractor must be able to operate in a minimum 4" diameter pipeline with enough clearance to negotiate offsets and debris.
2. Tractor shall be designed utilizing wheels / tires as it's mode of propulsion. Tracked crawlers or other modes of propulsion shall be deemed unacceptable.
3. Tractor is to be 4 wheel configuration in all size configurations without an additional axle protruding. Systems that are designed to be 6 wheel will be deemed unacceptable.
4. Tractor must be steerable with each side able to be independently operated to provide skid-steer style of turning. Tractor must have two internal motors for this operation.
5. All tractor drive components must be encased by the tractor body.
6. Tractor must be no longer than 14 inches in length. Any tractors longer than 14 inches shall be deemed unacceptable.
7. Tractor must have a dual swivel cable connector allowing for both X & Y axis to pivot. Tractors with a single axis or tip up only will not be accepted.
8. Must be able to be fitted with multiple camera connection configurations. Configurations shall include the following:
  - a. Standard fixed position.
  - b. Optional movable connection to assist in positioning in confined areas and providing camera protection during impact with objects.
  - c. Optional connection that allows the addition of an auxiliary light ring.
  - d. Optional manual adjustable lift.
9. Tractor must have continuously adjustable speed with speed set (cruise).
10. Tractor must have ATC (anti tilt compensation) that will automatically steer the tractor so that it does not ride up on the pipe wall and capsize. The anti-tilt compensation shall maintain the tractor on a level plane within the pipeline during operation. Any tractors without ATC (anti tilt compensation) shall be deemed unacceptable.
11. The tractor housing must be pressurized to a minimum of 1 bar to avoid water egress from damage. A low-pressure situation will alert the operator with an audible tone and text message on the camera controller's diagnostic display. Systems without both audible and visual alerts will not be accepted.
12. The tractor may be supplemented with various wheel sets, a tractor height extension, additional weights, and auxiliary LED lighting.
13. The tractor may be outfitted with an inclinometer module to monitor and log the pitch and roll of the tractor in the pipeline.
14. Tractor body must be manufactured from solid brass for weight and coated with a chrome finish to resist tarnishing and facilitate cleaning.
15. All fasteners must be manufactured from a non-corrosive material such as stainless steel or aluminum.
16. Tractor must have lowering hooks mounted to work in connection with a claw to enable insertion and extraction out of manholes with minimal risk to equipment
17. The tractor shall include wheel sets for 4", 6" and 8" diameter pipe.
18. Tractor protection class shall meet a minimum of an IP68 to IEC 529 rating.
19. A tool and spares kit must be provided for maintenance of the tractor.

## 2.3 Power Supply / Controller

1. Power supply controller shall be rack mount design with remote control station and keyboard handling camera power and controls, tractor power and controls, text generation, diagnostics, and cable winch controls. Camera systems that require more than one mounted component will be deemed unacceptable.
2. Remote Control Station must have a minimum 6" diagonal, full-color adaptive touch screen for selecting options and controlling system functions.
3. Remote Control Station shall give a diagnostic readout of component pressure and issue an audible warning when pressure is low.
4. Remote Control Station shall display the current draw of both the light heads and each motor in the tractor by view of a bar graph representing percentage.
5. Remote Control Station shall allow for adjustment of brightness / intensity of both auxiliary light rings and camera lights, as well as be able to switch off individual light banks on the auxiliary light head.
6. Power supply controller must have a graphic-oriented display generator to allow the operator to type on-screen text, display distance counter, camera inclination, and display date and time.
7. On-screen text must have a minimum of 16 lines of text with a minimum of 53 characters per line.
8. The controller must be capable accepting inputs for a minimum of 2 distance counters and switchable between meters and feet.
9. The controller must be able to delete all text from the screen with the press of a single key.
10. The power supply controller shall allow for a minimum of 10 color variations of overlay text to contrast on different backgrounds.
11. The on-screen text generator must have a header field that will continuously display text at the desired location.
12. The power supply controller shall allow the user to position each system field anywhere on the visible screen to prevent obstruction of view.
13. The power supply controller must automatically identify which camera, tractor, and cable winch is connected to the system.
14. The power supply controller must have a minimum of 1 composite video output, 1 S-Video output, and 1 composite video input.
15. The power supply controller shall be able to operate push cameras, small and large tractors, and lateral launch systems should an upgrade be desired in the future.
16. Tractor speed, speed set, direction, and steering must be operated from a multi-axis, multi-function joystick on the Remote Control Station. Forward and reverse must be controlled by an up or down motion, drift steering by side-to-side motion, and skid steering via rotation of the joystick. In addition, two function buttons must be supplied on the top of the joystick, one to set the speed and stop the tractor, the other to switch between cameras.
17. Camera pan & tilt operations, auto-home, iris, and focus must be operated from a multi-axis, multi-function joystick to be mounted in the desktop area. Camera rotation must be controlled by side-to-side movement of the joystick, tilting by up and down movement of the joystick and focus and iris controlled by rotation of the joystick. In addition, two function buttons must be supplied on the top of the joystick, one to return the camera to the home position, the other to switch between iris controls.
18. Joystick functions should automatically change based on power supply controller's recognition of the attached tractor or camera.
19. Joystick must have proportionate directional controls so that the speed of the tractor varies by the percentage from home to max.
20. Power supply controller must have the capability to switch between right hand and left hand joystick configurations.
21. Power supply controller must have 360 degrees joint inspection function that will automatically turn the camera to an upright position and then slowly scan 360 degrees.
22. Remote Control Station must allow the operator the ability to electronically and remotely switch off and on the radio sonde transmitter in the camera head.
23. Remote Control Station must allow the operator the ability to electronically and remotely switch off and on the upright picture control of the camera head.
24. When used with corresponding equipment, the power Remote Control Station must allow the operator the ability to electronically and remotely switch off and on the laser diodes, auto-focus, and control the zoom of the camera head.

25. The Remote Control Station must allow the operator the ability to electronically and remotely switch off and on the automatic tilt compensation of the tractor.
26. Remote Control Station must have an emergency stop button to remove all power to the downhole equipment.
27. Power supply controller shall weigh no more than 10 lbs. for ease of installation and shipping.
28. On-screen text entry and menu navigation shall be done on a standard QWERTY PS2/AT keyboard.
29. Controller must have a serial communications port using a DB9 connection for interface with various computer software's.
30. The power supply controller must be able to be restarted without removing power to other components and via menu selection from the Remote Control Station.
31. The power supply controller shall have a master power switch on the front of the unit.
32. Power supply controller must have on-board help menus to aid in new user operation.
33. Power supply controller menu system shall come standard with a minimum of 12 unique language settings.
34. Power supply controller must be able to be reset to factory defaults by a maximum of 3 key presses.
35. The power supply controller must have a function to calibrate the tractor mounted inclination meter and have the ability to calibrate within a minimum of +/- 5%.
36. The power supply controller must be constructed from lightweight, extruded aluminum with a minimum of 4 sides with over 80% of the surface area ventilated.

## 2.4 Portable Power Supply / Controller

1. Power supply controller shall be a rugged, stable, and easily transportable control box with a carrying handle.
2. The power supply controller shall be a single component design handling camera power and controls, tractor power and controls, text generation, video recording, diagnostics, and cable winch controls.
3. Power supply controller shall have a minimum 12" TFT professional color monitor enclosed in a metal cabinet. Consumer grade LCD or any CRT monitors shall be deemed unacceptable.
4. Power supply controller must have minimum 5.7" color LCD display with 8 buttons for system configuration, operating status, and error messages / diagnostics. During operation, graphical icons shall be displayed to quickly identify system operations.
5. The power supply controller's LCD display shall allow for contrast adjustment for viewing in various lighting conditions.
6. Power supply controller must have a graphic-oriented display generator to allow the operator to type on-screen text, display distance counter, camera inclination, and display date and time.
7. The power supply controller must automatically identify which camera, tractor, and cable winch is connected to the system.
8. Power supply controller shall give a diagnostic readout of component pressure and issue an audible warning when pressure is low.
9. Power supply controller shall display the current draw of both the light heads and each motor in the tractor by view of a bar graph representing percentage.
10. Power supply controller shall allow for adjustment of brightness / intensity of both auxiliary light rings and camera lights, as well as be able to switch off individual light banks on the auxiliary light head.
11. The power supply controller shall be able to operate push cameras, small and large tractors, and lateral launch systems, should an upgrade be desired in the future.
12. On-screen text must have a minimum of 16 lines of text with a minimum of 53 characters per line.
13. The controller must be capable accepting inputs for a minimum of 2 distance counters and switchable between meters and feet.
14. The power supply controller shall allow the user to position each system field anywhere on the visible screen to prevent obstruction of view.
15. The power supply controller shall allow for a minimum of 10 color variations of overlay text to contrast on different backgrounds.
16. The on-screen text generator must have a header field that will continuously display text at the desired location.
17. The power supply controller must have a function to calibrate the tractor mounted inclination meter and have the ability to calibrate within a minimum of +/- 5%.
18. The power supply controller must have a minimum of 1 composite video output, 1 S-Video output, and 1 composite video input.
19. Tractor speed, speed set, direction, and steering must be operated from a multi-axis, multi-function joystick to be mounted in the desktop area. Forward and reverse must be controlled by an up or down motion, drift steering by side-to-side motion, and skid steering via rotation of the joystick. In addition, two function buttons must be supplied on the top of the joystick, one to set the speed and stop the tractor, the other to switch between cameras.
20. Camera pan & tilt operations, auto-home, iris, and focus must be operated from a multi-axis, multi-function joystick to be mounted in the desktop area. Camera rotation must be controlled by side-to-side movement of the joystick, tilting by up and down movement of the joystick and focus and iris controlled by rotation of the joystick. In addition, two function buttons must be supplied on the top of the joystick, one to return the camera to the home position, the other to switch between iris controls.
21. Joystick functions should automatically change based upon power supply controller's recognition of the attached tractor or camera.
22. Joystick must have proportionate directional controls so that the speed of the tractor varies by the percentage from home to max.
23. Power supply controller must have the capability to switch between right hand and left hand joystick configurations.
24. Power supply controller must have a 360 degrees joint inspection function that will automatically turn the camera to an upright position and then slowly scan 360 degrees.



25. The power supply controller must allow the operator the ability to electronically and remotely switch off and on the radio sonde transmitter in the camera head.
26. The power supply controller must allow the operator the ability to electronically and remotely switch off and on the upright picture control of the camera head.
27. When used with corresponding equipment, the power supply controller must allow the operator the ability to electronically and remotely switch off and on the laser diodes, auto-focus, and control the zoom of the camera head.
28. The power supply controller must allow the operator the ability to electronically and remotely switch off and on the automatic tilt compensation of the tractor.
29. Power supply controller must have an emergency stop button to remove all power to the downhole equipment.
30. The power supply controller shall have a master power switch on the front of the unit.
31. On-screen text entry and menu navigation shall be done on a standard QWERTY keyboard built into the controller.
32. The power supply controller must be able to be restarted without removing power to other components and via menu selection.
33. Power supply controller must have on-board help menus to aid in new user operation.
34. Power supply controller menu system shall come standard with a minimum of 12 unique language settings.
35. Controller must have a serial communications port using a DB9 connection for interface with various computer software's.
36. Power supply controller must be able to be reset to factory defaults by a maximum of 3 key presses.
37. The power supply controller must include an intelligent firmware updating system. The system shall include a media reading slot using a SD flash card. When updates are available, the user can insert the SD card and power on the unit, automatically updating all system firmware.
38. The power supply controller must have a standard built-in digital video recorder (DVR). The DVR shall record inspection video to an MPEG 4 SP format onto CF media, SD media, or Memory Stick. DVR must include a remote control for operations and menu navigation.
39. The power supply controller must have the ability to include a completely built in computer for pipe inspection software. A touch pad mouse shall be built-in the front panel. Systems with external components will be deemed unacceptable.
40. Power supply controller shall be automatically switching between 110 VAC / 60 Hz and 240 VAC / 50 Hz. With a power consumption of no greater than 700 watts.
41. Power supply controller must be no larger than 20" x 14" x 12" with a weight of less than 42 lbs.

### 3.00 Powered Cable Winch (1000 ft.)

1. The cable winch shall be stationary mounted and hold 1000 linear feet of camera cable.
2. Cable winch must operate with a 48 volt DC power source.
3. The cable winch must have an automatic level wind guide.
4. Cable winch must be fitted with a timing belt drive that requires no greasing of any drive component. Cable winches that utilize chain drive or require greasing of bearings or chains will be deemed unacceptable
5. The cable winch shall have a cable equalization amplifier for video picture processing.
6. The cable winch must have an electromagnetic clutch to engage and disengage the cable winch.
7. The cable winch's clutch must be electronically switchable on and off using a push button switch with a LED status indicator light.
8. There shall be a cable distance-measuring device built into the boom and integrated pulley.
9. Cable winch must have an integrated traction-regulating device that ensures optimum performance of the tractor in all operating conditions. This system assists in paying out cable dependent on tractor speed.
10. Cable winch must have an integrated lowering winch to lift, lower, and position the tractor from the truck into the manholes. Aftermarket NON integrated winches will not be accepted.
11. The cable winch's integrated lowering winch must be capable of lifting a minimum of 175 lbs.
12. The cable winch shall be equipped with an emergency brake that will lock the reel if power is lost to the system to prevent uncontrollable unreeling of camera cable. Emergency brake must be equipped with a manual override and hand crank.
13. Cable winch must have a remote control pendant with the following controls:
  - a. Tractor direction and speed.
  - b. Tractor stop.
  - c. Control cable winch.
  - d. Operate lowering winch.
  - e. Switch between internal and external controls.
  - f. Turn winch on and off.
  - g. Retract lateral launch cable if attached.
14. Cable winch must have an emergency stop button on both the drum and the pendant controller to remove all power to the downhole equipment.
15. Cable winch must have a minimum of 3 status indicators, power and circuit breaker states.
16. Cable winch must have a button used to reset the distance counter to zero position.
17. Cable winch must have a foldable boom that will lock into position at various angles.
18. The cable winch's foldable boom must be able to support a minimum of 175 lbs.
19. Cable winch must have a 12 VDC LED work light mounted on the boom to illuminate in a downward angle to illuminate the invert or work area.
20. Cable winch must have a removable drip tray that will catch and retain water and debris from main cable drum.
21. Camera cable must be a maximum of 0.375" diameter with 2000 lb. rating and Kevlar fiber armored.
22. Camera cable must have an industrial connector on the reel end to aid in quick exchange of cable.
23. Systems that utilize, recommend or endorse the use of cable strain reliefs will be deemed unacceptable.
24. Cable winch must be able to operate with an optional foot-controlled switch for hands-free raising and lowering of the camera / tractor with the lowering winch.
25. Cable winch shall be constructed of light, high-strength powder coated aluminum

### 3.1 Pressure Test Kit

1. A pressure test kit must be supplied to pressurize the camera and tractor components.
2. The pressure test set must provide clean dehumidified air to the components.
3. The pressure test set must have quick connect adapters to accommodate each component.
4. The pressure test kit must have an air gauge and air relief valve set to 1 bar to prevent over pressurization.

### 3.2 Pneumatic Tire Set

1. A pneumatic wheel set must be provided for the small crawler to enable operations in 10" diameter pipe and upwards.

### 3.3 Work Accessories

1. System must include a cable deflection pulley to aid in cable entry into pipeline.
2. Tractors must include a lowering hook with quick disconnect and have ease of operation during retrieval.

### 3.4 Manual Height Attachment

1. Height attachment must be constructed of brass.
2. Must be able to be added to the T66 without exposed wires. Systems that have any exposed wires will be deemed unacceptable.
3. Must attach with a maximum of 4 fasteners.
4. Must have multiple stop or set points to be centered in predetermined diameters

### 3.5 Accessory Grease Wheel

1. Wheel must be made of a granulated rubber material. Steel/metal grease wheels will not be accepted.
2. Grease wheels must be made of a composite material hard/stone or wheels not designed and intended for use in this manner will not be accepted.
3. Grease wheels must be available in multiple sizes to accommodate inspections of pipelines.
4. All wheels will be installed with 2 or more fasteners, single fastener systems will not be accepted.

Bid submitted by:

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Print Name and Title: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Date: \_\_\_\_\_

E-mail: \_\_\_\_\_

## **EXHIBIT “E”**

### **References**

Bidder shall provide at least four (4) customer reference(s) over the past five-year period for which you have provided equivalent services to this Proposal, Bid, and or Quote. Do not provide the name of a reference unless it is verified that the person can be contacted at the email or number provided.

**#1 Company Name:** \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

E-mail: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Project Date & Value: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**#2 Company Name:** \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

E-mail: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Project Date & Value: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**#3 Company Name:** \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

E-mail: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Project Date & Value: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**#4 Company Name:** \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

E-mail: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Project Date & Value: \_\_\_\_\_ Fax Number: \_\_\_\_\_